

REMARKS

Claims 1-8, 13-20, 27-29 and 31 have been amended. Claims 1-31 remain pending in the application. Reconsideration is respectfully requested in light of the following remarks.

Provisional Double Patenting Rejection:

The Examiner provisionally rejected claims 1-31 under the judicially-created doctrine of obviousness-type double patenting as being unpatentable over claims 1-36 of copending Application No. 10/027,353. Applicant acknowledges this provisional rejection and will address the rejection should the rejection become non-provisional.

Section 112, Second Paragraph, Rejection:

The Examiner rejected claims 1-26 and 28-31 under 35 U.S.C. § 112, second paragraph, as indefinite for reciting the term “cache accumulator,” whereas the specification uses both the terms “cache accumulator” (in the summary and brief description of the drawings sections) and “cache accumulator memory” (in the detailed description of embodiments section).

In order to conform the claims to the portion of the specification in which embodiments are described in detail, Applicant has amended claims 1-8, 13-20, 28-29 and 31 to replace instances of the term “cache accumulator” with the term “cache accumulator memory.” However, Applicant notes that the two terms are used interchangeably in the specification, and further notes that this amendment is not intended to narrow or limit the scope of the claims in any way.

Applicant submits that the rejection of claims 1-26 and 28-31 under 35 U.S.C. § 112, second paragraph, has been overcome, and respectfully requests removal of the rejection.

Section 102(b) Rejection:

The Examiner rejected claims 1, 4-6, 12, 16, 20, 25, 27 and 28 under 35 U.S.C. § 102(b) as being anticipated by Fossum et al. (U.S. Patent 4,888,679) (hereinafter “Fossum”). Applicant respectfully traverses this rejection and submits that these claims are not anticipated by Fossum, as set forth in greater detail below.

With respect to claim 1, Fossum fails to teach or suggest all of the limitations recited in Applicant’s claim. In particular, Fossum fails to teach or suggest any aspect of a cache accumulator memory. That is, Fossum fails to teach or suggest a device that is configured as a cache of a memory, and that is also configured to accumulate an intermediate result of a block accumulation operation performed on a given block operand, wherein the intermediate result is both a result of and an operand of the block accumulation operation. Although Applicant feels these features of a cache accumulator memory are clear from the context of the specification and the exemplary embodiments described therein, for clarity Applicant has amended claim 1 to recite them explicitly.

As noted in the background section of Applicant’s specification, accumulation operations pose a distinct set of challenges owing to the fact that an operand of the accumulation operation also serves as the result of the operation. Fossum discloses a cache 24 configured to service both a scalar processor 21 and a vector processor 22, but fails to disclose any aspect of accumulation operations or any specific problems presented by such operations. Fossum therefore does not disclose a cache accumulator as recited in Applicant’s claim 1, and as such cannot be said to anticipate claim 1. Applicant notes that the remaining cited art also fails to teach or suggest this limitation, either separately or in combination. Consequently, Applicant submits that claim 1 is patentably distinguishable over the cited art.

A similar argument applies to independent claims 16, 27 and 28, each of which recites limitations similar to claim 1. Thus, Applicant submits that each of these

independent claims as well as those claims depending therefrom are therefore patentably distinguishable over the cited art.

Section 103(a) Rejection:

The Examiner rejected claims 2 and 15 under 35 U.S.C. § 103(a) as being unpatentable over Fossum as applied to claim 1 above, and further in view of McClure (U.S. Patent 5,590,307), claim 3 as being unpatentable over Fossum as applied to claim 1 above and further in view of Faraboschi et al. (U.S. Patent 6,122,708) (hereinafter “Faraboschi”), claims 7 and 8 as being unpatentable over Fossum as applied to claim 1 above and further in view of Handy (“The Cache Memory Book: The Authoritative Reference on Cache Design,” Academic Press, 1993, page 57), claims 9, 10 and 11 as being unpatentable over Fossum as applied to claim 1 above and further in view of “Microsoft Computer Dictionary,” Microsoft Press, 2002, page 391: parity (hereinafter “Microsoft”), and claims 13 and 14 as being unpatentable over Fossum as applied to claim 1 above and further in view of Morton (U.S. Patent 6,088,783).

The Examiner rejected claim 17 under 35 U.S.C. § 103(a) as being unpatentable over Fossum as applied to claim 16 above and further in view of McClure, claim 18 as being unpatentable over Fossum as applied to claim 20 above and further in view of McClure, claim 19 as being unpatentable over Fossum as applied to claim 1 above and further in view of Faraboschi, claims 21 and 22 as being unpatentable over Fossum as applied to claim 1 above and further in view of Handy, claims 23 and 24 as being unpatentable over Fossum as applied to claim 1 above and further in view of Microsoft, and claim 26 as being unpatentable over Fossum as applied to claim 20 above and further in view of Morton.

The Examiner rejected claims 29 and 30 under 35 U.S.C. § 103(a) as being unpatentable over Fossum as applied to claim 28 above in view of Morton and in further view of Microsoft, and claim 31 as being unpatentable over Fossum as applied to claim 1 above and further in view of McClure.

Applicant traverses each of these rejections and notes that the dependent claims recite further distinctions over the cited art. However, as each of these dependent claims has been shown above to be distinguishable by virtue of its dependence on a distinguishable independent claim, a further discussion of their distinctions is unnecessary at this time.

Information Disclosure Statement:

Applicant notes that a second information disclosure statement was submitted electronically to the U.S. Patent Office on August 31, 2004. However, a signed and initialed copy of the electronic submission indicating consideration of the listed references was not included with the Office Action. Applicant requests the Examiner to carefully consider the listed references and return a copy of the signed and initialed electronic submission from the August 31, 2004 statement, a copy of which is provided herewith for the Examiner's convenience.

CONCLUSION

Applicant submits the application is in condition for allowance, and notice to that effect is respectfully requested.

If any extension of time (under 37 C.F.R. § 1.136) is necessary to prevent the above referenced application from becoming abandoned, Applicant hereby petitions for such extension. If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 501505/5681-05200/RCK.

Also enclosed herewith are the following items:

- Return Receipt Postcard
- Petition for Extension of Time
- Notice of Change of Address
- Copy of electronic IDS previously submitted on August 31, 2004
- Information Disclosure Statement and accompanying Form PTO-1449 and references

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Respectfully submitted,



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